

20020228 108

Russia's Mortality Crisis

Drinking, Disease, and Deteriorating Health Care

Over the past decade, the Russian Federation has suffered increases in mortality unprecedented for an industrialized nation at peace. In *Dire Demographics: Population Trends in the Russian Federation*, authors Julie DaVanzo and Clifford Grammich examine the dimensions of this alarming trend, look at Russia's troubled health care system, and explore a range of policy options for reducing mortality rates. Addressing the causes of the mortality crisis, they contend, will require both short-term initiatives to counter a recent resurgence in infectious diseases and longer-term initiatives to improve the health behaviors of individuals and the capabilities and financial footing of the health care system.

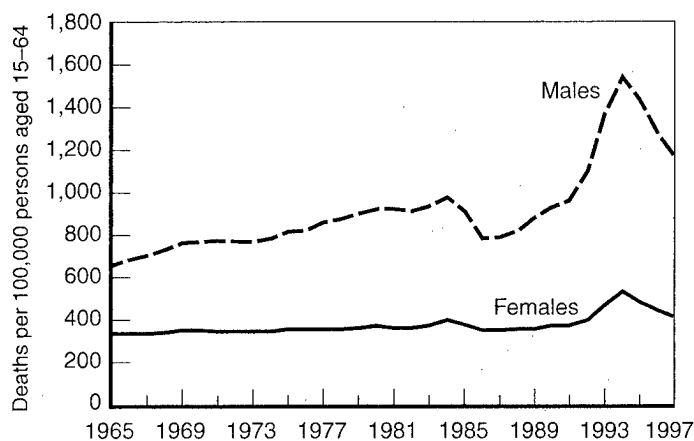
DIMENSIONS OF THE CRISIS

The statistics are stark: Between 1987 and 1994, the number of annual deaths in Russia increased from 1.5 million to 2.3 million. In seven of the past eight years, there have been at least two million deaths in Russia, and in each year since 1992, the number of deaths in Russia has exceeded the number of births, resulting in a net population loss. Mortality increases have been concentrated among working-age males, whose death rates now are about double what they were in the 1960s, when mortality rates first began to rise (Figure 1).

Alcohol consumption appears to be a key culprit in rising Russian mortality. The strongest evidence for the link between mortality and alcohol consumption for Russian males is in their fluctuating rates of death by external causes, such as accidents, injuries, and violence, which are often associated with alcohol abuse. Russian male mortality fell sharply, and Russian male life expectancy reached its highest levels ever, during an antialcohol campaign from 1984 to 1987. This campaign reduced state alcohol production, launched efforts against

distillation and distribution of homemade alcoholic beverages, raised state prices for liquor, and fostered compulsory treatment of alcoholism where indicated. It also proved highly unpopular and was abandoned after a few years, after which both alcohol consumption and mortality increased sharply for Russian males.

Also contributing to the increase in mortality in the early 1990s was the stress of the post-Soviet transition. Deaths from circulatory diseases, often associated with stress, were responsible for about half the increase in Russian male mortality in the years immediately following the fall of the Soviet Union. Economic improvement presumably could help cut the numbers of such deaths.



SOURCES: : Meslé, France et al., *Tendances récentes de la mortalité par cause en Russie 1965-1994*, Moscow: Centre de Démographie et d'Écologie Humaine, 1996; Pashintseva, N. I., I. V. Voronina, and L. A. Kazachenko, *The Demographic Yearbook of Russia, Statistical Handbook*, Moscow: RF Goskomstat, 1998; U. S. Census Bureau, *International Data Base*, 2000.

Figure 1—Mortality Rates for Working-Age Males Have Been Increasing Since the Mid-1960s

Other causes of death, including those related to environmental hazards, are not important in explaining recent *variations* in Russian male mortality. Nonetheless, it is noteworthy that rates of death from virtually every cause are very high in Russia. Russian working-age males have a death rate about four times that for U.S. males of the same age group, with rates of death due to external causes (accidents, injuries, violence) six times the U.S. rate and those due to infectious and parasitic diseases five times the U.S. rate.

THE FAILING HEALTH CARE SYSTEM

The alarming rise in mortality rates points to fundamental problems in the Russian health care system that have been accumulating over many years. The Soviet health care system was designed to control communicable and infectious diseases once rampant in Russia. Such a system, which emphasized quantity over quality, could not easily adapt to the rising incidence of "civilization" diseases, such as cancer, cardiovascular disease, and those resulting from alcohol and tobacco use. The efforts to adapt under centralized health planning led to inefficient health care investments in training and equipment. Over time, the Soviet health care system produced more medical professionals with narrow specializations, including those, for example, based on patient ages or a particular diagnostic or surgical procedure. This led to anomalies such as heart specialists unable to perform heart surgery.

The Soviet health care system also produced too few health professionals skilled in preventive care, such as general and nurse practitioners. This problem has grown worse in recent years. The ratio of physicians to population in Russia has grown nearly 10 percent since 1992, and is now nearly 55 percent greater than that in the United States, while the ratio of nurses to population has declined slightly, and is now 25 percent less than that in the United States. There are nearly ten times as many physicians in Russian hospitals as there are in primary health care establishments away from hospitals.

The Russian health care system has also suffered from a long-term decline in funding. After peaking at 6 percent of gross national product in the 1960s, funding for Soviet health services was subject to a "residual principle" in which all other government services were funded before health services. After the USSR dissolved, the Russian Federation was unable to reverse this decline. To put spending levels in perspective, consider that in the mid-1990s, per capita, Russia was spending 4 cents for every dollar Americans were spending on health care. Many

physicians in Russia earn less than drivers or baby-sitters. Given this funding environment, an antiquated hospital system with one-tenth of its structures built before World War I and one-fifth lacking running water can scarcely hope to update all its facilities to soon meet 21st-century standards.

These funding shortfalls have caught up with the system. Diseases once thought to be under control are making a comeback. Tuberculosis, for example, one of the first scourges that the Soviet health system sought to contain, is at its highest level in 30 years. New threats loom, with increasing HIV and AIDS prevalence posing particular challenges to a cash-strapped system. While Western nations use disposable hypodermics to control the spread of AIDS, for example, cost constraints often force Russian physicians to reuse disposable equipment. The alcohol used to sterilize nondisposable equipment is often in short supply, in part because it is sometimes imbibed.

POLICY IMPLICATIONS: IMPROVING RUSSIAN HEALTH EDUCATION AND FINANCING

While general economic improvement and greater health care funding would undoubtedly help, broader public health education, similar to that undertaken in the United States, might be the most effective means to improving Russians' health. In addition to alcohol abuse, evidence of other poor Russian health behaviors includes a diet that is among the richest in the world and tobacco use by males that is twice the U.S. level. Russia can apply several lessons from Western initiatives to improve health behaviors regarding diet and tobacco use, although these will probably take years to have a measurable effect.

Unfortunately, the most pressing problem for Russian health education may be the most difficult to address: high rates of alcohol consumption. Russian per capita alcohol consumption continues to exceed the level that the World Health Organization says endangers health in a country. Agrarian Russian patterns of "holiday-peak" drinking have given way to modern patterns of binge drinking, which exacerbate the health problems of excessive alcohol use. Government efforts to curb alcohol use, including recent efforts to raise taxes on it, have been unpopular.

Some efforts to improve Russian health care financing have been more successful. The United States has played a direct role in improving Russian health care facilities. A USAID program subsidizing health care partnerships between American and Russian "sister cities" helped one Russian city eliminate the need for one-third of its hospital

beds while maintaining a mortality rate below the national average. When properly equipped and funded, Russian health care facilities may be among the finest in the world; as some proclaim the Kremlin Hospital to be after its improvements, funded by American donors, to help former Russian President Boris Yeltsin avoid the political embarrassment of traveling to the West for high-quality cardiac care.

Western nations have reasons beyond these political sensitivities for supporting Russian health care reform. Poor health could further reduce the productivity or even

the number of working-age Russians, which will soon dwindle in any event as the large number of persons born after World War II retire and the small number of persons born in recent years take their place in the workforce. This could weaken the Russian economy and precipitate a broader social and political crisis affecting political stability in Russia, and hence international order. More immediately, the ability of diseases like tuberculosis and HIV/AIDS to cross borders provides the international community a direct motive for helping Russia improve its health care system.

RAND policy briefs summarize research that has been more fully documented elsewhere. This policy brief describes work done for the Population Matters project of RAND's Labor and Population Program and documented in Dire Demographics: Population Trends in the Russian Federation, by Julie DaVanzo and Clifford Grammich, RAND MR-1273-WFHF/DLPF/RF, 2001, 101 pp., ISBN: 0-8330-2930-4. Available free from Population Matters. Other policy briefs on this research address overall demographic trends in Russia and abortion and contraception in Russia. Population Matters is funded by the William and Flora Hewlett Foundation, the David and Lucile Packard Foundation, the Rockefeller Foundation, and the United Nations Population Fund. Population Matters publications and other project information are available at <http://www.rand.org/popmatters>. RAND publications are available from RAND Distribution Services (Telephone: 310-451-7002; toll free 877-584-8642; Fax: 310-451-6915; email: order@rand.org; or the web: www.rand.org/publications/order). RAND® is a registered trademark. RAND is a nonprofit institution that helps improve policy and decisionmaking through research and analysis; its publications do not necessarily reflect the opinions or policies of its research sponsors.

RAND

1700 Main Street, P.O. Box 2138, Santa Monica, California 90407-2138 • Telephone 310-393-0411 • Fax 310-393-4818

1200 South Hayes Street, Arlington, Virginia 22202-5050 • Telephone 703-413-1100 • Fax 703-413-8111

201 North Craig Street, Suite 102, Pittsburgh, Pennsylvania 15213-1516 • Telephone 412-683-2300 • Fax 412-683-2800

Newtonweg 1, 2333 CP Leiden, The Netherlands • Telephone 011-31-71-524-5151 • Fax 011-31-71-524-5191

RB-5056-WFHF/DLPF/RF/UNFPA (2001)

